

1-7-71

PATENT SPECIFICATION

(11) 1 238 303

DRAWINGS ATTACHED

1 238 303

(21) Application No. 28493/67 (22) Filed 20 June 1967

(23) Complete Specification filed 19 Sept. 1968

(45) Complete Specification published 7 July 1971

(51) International Classification A 45 f 3/08

(52) Index at acceptance

A4G 5A 5C 5F1 5F2 7

GREAT BRITAIN
GROUP 3/4
CLASS. 2.24
RECORDED



(54) IMPROVEMENTS IN OR RELATING TO PORTABLE CONTAINERS

(71) I, JOHN EDWARD DROEGER, a citizen of the United States of America, of 309 Rutledge Street, San Francisco, California 94110, United States of America, (formerly of 1 Oak Tree Close, Burpham, Guilford, Surrey, England) do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to cases, bags or like portable containers, such as suitcases or holdalls, which may be carried in the hand in the manner of a conventional case, or upon the back in the manner of a rucksack.

According to the present invention, there is provided a portable container including a manual carrying handle, and a harness arrangement enabling the container to be carried on a person's back, said harness arrangement comprising a frame, connected or connectable to the container, means to attach the frame to a person's back, and a panel of material which is foldable to form a resilient cushion attached to the container at a position so as to be disposed between the container and the back of a person when carrying the container by the harness arrangement, the panel, in its unfolded condition, being securable across, and at least partially concealing, the frame, to form part of the external surface of the container, when the container is to be carried by hand.

The invention also consists in a harness arrangement capable of attachment to a portable container, comprising a frame connectable to the portable container, a shoulder strap or equivalent arrangement connected to the frame, and a panel of resilient material foldable to form a resilient cushion, means to retain the panel in its folded condition, when the harness arrangement is operatively attached to the container and the container is carried on the back of a person by means of said harness arrangement, so as to be disposed between the container and the person's back the panel being unfoldable into an extended

condition in which it is securable across the frame to at least partially conceal the frame.

In order that the invention may be more readily understood, one embodiment thereof will now be described with reference to the accompanying drawings, in which:—

Figure 1 is a perspective view of a case or holdall when arranged to be carried by conventional handles, with the harness arrangement stowed away;

Figure 2 is a perspective view of the case shown in Figure 1, with the harness arrangement unstowed and ready for use;

Figure 3 is a transverse section through the case shown in Figures 1 and 2, with the harness arrangement stowed away; and

Figure 4 is an enlarged fragmentary section through the harness arrangement shown in its unstowed condition.

Referring to the drawings, there is shown a portable container, for example, a case 1 made from canvas, fabric or other suitable material, having a closure such as a sliding clasp fastener 2, and manual carrying handles 3. One of the larger sides of the case, namely the side 4, incorporates a generally rectangular panel or flap 5 which may be separated from the surrounding portion of the fabric of the side 4, on three sides, by a sliding clasp fastener 6 following a generally "U" shaped path. This flap 5, as is shown diagrammatically in Figure 3, comprises two layers of fabric 5a between which is sandwiched a layer of resilient material 5b, such as a layer of polyether foam, foam latex rubber, kapok or a granulated natural or synthetic foam. The outermost of the layers 5a is preferably formed from the same fabric as that of the side 4, and, in this embodiment, is integral therewith so that it forms a continuation thereof when secured thereto by the fastener 6 as shown in Figure 1.

As shown in Figures 2 to 4, behind the flap 5 there is secured to the case 1, a semi-rigid frame or diaphragm 7, for example, a sheet plywood diaphragm, which also serves as a frame or stiffener for the case 1. This diaphragm 7 is separated from the interior

of the case 1 by means of a sheet of fabric 8 as shown in Figures 3 and 4. Secured to the diaphragm 7 are shoulder straps 9 formed, for example, by threading a length of webbing adjacent its centre, through eyelets or apertures 10 in the diaphragm 7, and anchoring it in place by means of a buckle 11. The free ends of the straps 9 are folded back through buckles 12 to form loops carrying snap clips or hooks 13. By means of these clips 13, the straps may be attached to anchorages formed by spring wire loops 14 which are secured in apertures 15 in the diaphragm 7 as will be apparent from Figures 2 and 4. The buckles 12 permit adjustment of the shoulder straps.

Additional straps 16 are secured to the diaphragm 7 below the apertures 15. These additional straps extend downwardly, and are provided with snap fastener elements 16a which are co-operable with corresponding snap fastener elements 16b secured to the base of the case 1.

As will be seen from Figure 1, when the case 1 is to be carried in the usual way by hand, the diaphragm 7 and shoulder straps 9 and 16 are completely concealed behind the closed flap 5, so that the presence of the diaphragm and straps is not noticeable and except for the presence of the fastener 6, the case 1 has the appearance of a conventional case. However, when the case is to be carried on a person's back, in the manner of a rucksack, the flap 5 is unfastened, rolled down to expose the shoulder straps as shown in Figures 2 and 4, and is secured in this form adjacent the bottom of the case by the straps 16 which are, in turn, secured by the snap fastener elements 16a and 16b. The straps 9 are then looped around the shoulders of the person who is to carry the case on his back, and the rolled flap 5 forms a resilient cushion between the case and the lower portion of the person's back to hold the case away from the back.

When it is desired to re-convert the case for manual carriage, the lower ends of the straps 16 are unsnapped from the base of the case, the flap 5 is unrolled, and is refastened in its extended condition to the side 4 of the case by the fastener 6, thereby overlying and concealing the shoulder straps and diaphragm 7.

From the foregoing description it will be seen that there is provided a case which may be readily and rapidly converted for carriage on a person's back, conversion being effected without disturbing the contents of the case. The harness arrangement by means of which the case may be adapted for carriage on the back is comparatively inexpensive to manufacture, and the metal components thereof may be readily obtainable from stock. Furthermore, the weight of the harness

arrangement adds little to the overall weight of the case.

It will be understood that various modifications may be made without departing from the scope of the present invention as defined in the appended claims. For example, the harness arrangement comprising the frame or diaphragm, shoulder straps and flap may be manufactured and sold as a separate unit securably by suitable means to an existing case or other portable container, instead of forming an integral part of the case. In this former event, the fabric sheet 8 is not required, since the diaphragm will be secured to the outside surface of the case, the flap 5 may be secured directly to the diaphragm 7 instead of to, or forming part of, the container and the means by which the flap 5 is retained in its rolled-up condition, namely the strap 16 or its equivalent, may be operable independently of the container, for example, the fastener element 16b may be secured to the diaphragm 7. The said means may alternatively comprise an extension of the straps 9, or completely separate means carried, for example, by the flap 5 itself. The foam or resilient layer 5b may be replaced by a pneumatic bladder.

The harness arrangement may be incorporated in, or securable to a variety of types and sizes of bags, cases or other portable containers and the materials of the components of the arrangement may be changed, as well as the dimensions and configurations thereof.

WHAT I CLAIM IS:—

1. A portable container including a manual carrying handle, and a harness arrangement enabling the container to be carried on a person's back, said harness arrangement comprising a frame, connected or connectable to the container, means to attach the frame to a person's back, and a panel of material foldable to form a resilient cushion attached to the container at a position so as to be disposed between the container and the back of a person when carrying the container by the harness arrangement, the panel, in its unfolded condition, being securable across, and at least partially concealing, the frame, to form a part of the external surface of the container, when the container is to be carried by hand.

2. A container as claimed in claim 1, wherein the attachment means comprises a shoulder strap arrangement, and the panel comprises a flap including a layer of resilient material attached to an outer layer of fabric forming a continuation of the external surface of the container.

3. A container as claimed in claim 2, wherein the outer layer of the flap is integral with the external surface of the container and is partially separable therefrom by

means of a sliding clasp fastener, the frame and shoulder strap arrangement being wholly covered by the flap when the fastener is closed.

- 5 4. A container as claimed in claim 3, wherein the flap is of generally rectangular outline, integrally connected to the container by its lower end disposed most adjacent to the base of the container and detachably
10 connectable to the container along its remaining three edges by the sliding clasp fastener.

- 15 5. A container as claimed in claim 4, wherein means are provided for securing the flap in a rolled-up condition against the frame adjacent its lower end.

- 20 6. A container as claimed in claim 5, wherein said securing means comprises a strap, having an end attached to the frame, and being detachably securable by its other end to the container below the level of the lower edge of the flap.

- 25 7. A container as claimed in claim 1, 2 or 3, wherein the frame comprises a rigid plate-like diaphragm mounted within the container,

to which the attachment means is secured.

8. A harness arrangement capable of attachment to a portable container, comprising a frame connectable to the portable container, a shoulder strap or equivalent
30 arrangement connected to the frame, and a panel of resilient material foldable to form a resilient cushion, means to retain the panel in its folded condition, when the harness arrangement is operatively attached to the
35 container and the container is carried on the back of a person by means of said harness arrangement, so as to be disposed between the container and the person's back, the panel being unfoldable into an extended
40 condition in which it is securable across the frame to at least partially conceal the frame.

9. A portable container and a harness constructed substantially as hereinbefore described with reference to the accompanying
45 drawings.

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COMPLETE SPECIFICATION

1 SHEET

This drawing is a reproduction of the Original on a reduced scale

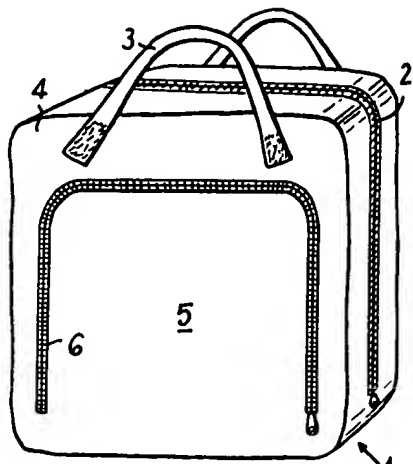


Fig. 1

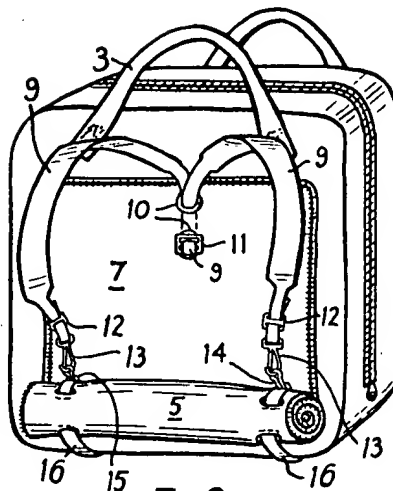


Fig. 2

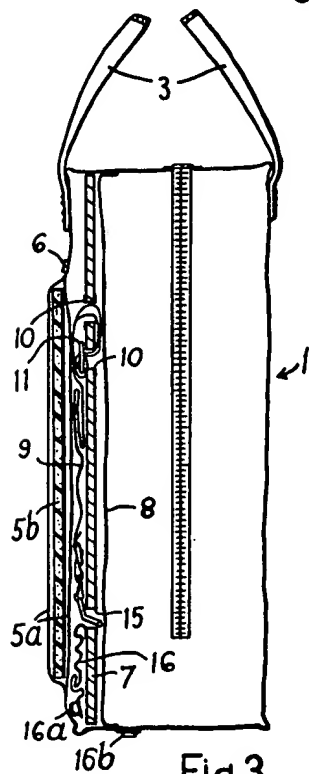


Fig. 3

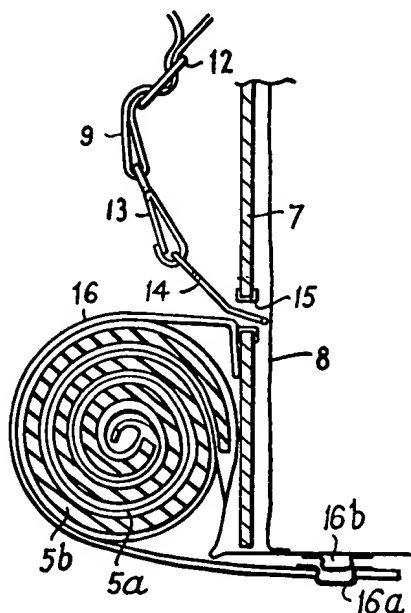


Fig. 4